

I. Transportation Infrastructure

Responsibility for Streets and Highways

North Carolina is almost unique among the 50 states in that its county governments have no construction or maintenance responsibility for streets or highways. This has been the case since 1931, when the state assumed responsibility for the road systems then maintained by the counties. As a result the N.C. Department of Transportation (DOT) is responsible for the entire public road and highway system outside of cities and towns. What would be county roads in other states are part of North Carolina's secondary road system.

Inside cities, DOT shares responsibility with the various cities and towns. The state is responsible for those major roads that move traffic through a city or town or move traffic to major destinations within a city or town. All other public streets or roads within a city or town are that local government's responsibility. (Cities can also participate to a limited extent in construction of state roads within and nearby their borders.)

The Extent of the Public Road System

According to DOT's publication, 2005 Highway and Road Mileage, here is the extent of North Carolina's public road system as of 31 December 2005:

DOT-maintained

Primary Highway System	14,805 miles
Secondary Road System	<u>64,204</u>
Total DOT-maintained system	79,009 miles

City-maintained

City/town maintained	20,125.7 miles
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(About 7800 miles of the DOT-maintained system is within cities and towns; the rest is in unincorporated areas. There are also a few hundred miles operated by State Parks and Wildlife and a little over 3,000 miles maintained by the federal government within federal lands and facilities.)

In 2001 DOT issued a report about highway needs over the next 25 years. It forecast \$55 billion of expected resources during that period and \$84 billion in anticipated needs. This gap of almost \$30 billion is currently expected to grow larger.

Financing Streets and Highways

State Funding Structure

The State funds DOT programs through two major budgetary funds, the Highway Fund and the Highway Trust Fund.

The **Highway Fund** is the traditional budgeting and accounting entity for DOT programs, and it includes DOT programs beyond the Division of Highways, such as DMV, the Ferry division, and so on. It is also a major funding source for secondary road paving.

The **Highway Trust Fund** was created in 1989 with two principal purposes: to fund the so-called Intrastate highway system, which was intended to bring a 3600-mile system of 4-lane highways to all parts of the state; and to fund seven urban loops around the state's largest cities. A small portion of the Fund also supports paving of secondary roads. In addition, the Fund is required to transfer a substantial sum each year to the state's General Fund; this amount was originally \$170 million annually, but in recent years it has been between \$240 and \$250 million. For the current year, however, the amount was reduced to \$55 million.

In the last five years, the General Assembly has directed that substantial sums in the Highway Trust Fund be used for purposes other than those originally intended. SB 1005 of the 2001 session provided for the transfer of \$687 million over three years for other DOT purposes, primarily pavement preservation (\$470 million) and non-Highway activities such as transit (\$120 million). The 2003 Moving Ahead initiative directed that another \$700 million in cash balances be transferred over two years, with \$630 million going to maintenance and modernization and the remainder for transit and other non-highway programs.

Over time the Intrastate system and urban loop systems have been expanded, particularly the latter. According to the 2005 report of the Highway Trust Fund Study Committee, the Intrastate system has grown from 3600 miles to 3633, and the urban loops have been expanded from 211 miles to 379. At the time the report was written, there remained 962 miles of the Intrastate system to complete and 265 miles of the urban loops.

State Funding Sources

Motor Fuels Tax. This tax is 17.5 cents per gallon plus the greater of 3.5 cents per gallon or 7 percent of the average wholesale price; the variable amount is adjusted every six months. The 2006 General Assembly capped the variable amount of the tax at 12.4 cents per gallon, through July 1, 2007, and the current total rate is 29.9 cents per gallon.

Highway Use Tax. This is a 3 percent tax, up to \$1000, imposed when a new title is issued for a motor vehicle.

Federal funds.

The Highway Fund and Highway Trust Fund had these amounts of major revenues for the fiscal year that ended 30 June 2005. The amounts are in thousands:

<u>Revenue source</u>	<u>Highway Fund</u>	<u>Highway Trust Fund</u>
Motor fuels tax	972,559	324,269
Highway use tax		580,118
Federal funds	1,134,639	
Fees, licenses, fines	459,447	99,207
TOTALS	2,662,801	1,019,809
Expenditure totals	2,528,274	1,053,097

City Funding Sources

State street assistance (Powell Bill) is a program by which some state funding sources are shared with cities and towns. The city/town share is an amount equal to 1.75 cents per gallon of the motor fuels tax plus 6.5 percent of the net proceeds of the Highway Trust Fund. Three-quarters of the money is distributed to cities based on their population, and one-quarter on the basis of their miles of city-maintained streets. In 2005, these amounts were \$23.03 per capita and \$1709.23 per mile. This money is earmarked for street and sidewalk expenditures.

According to the reports received by the Local Government Commission, in 2004-05 cities collectively received \$130,699,554 in Powell Bill funds. During the same year, they reported spending \$405,242,182 on city streets and highways.

State Borrowing

The 1996 General Assembly authorized \$ 950 million of state general obligation bonds for highway purposes, which were approved by the voters. The enabling legislation called for \$500 million of the proceeds to be used for urban loops, \$300 million for the Intrastate system, and \$150 million for paving secondary roads. The last series of this authorization was issued in 2004, and the last \$700 million provided the cash to fund the 2003 Moving Ahead initiative. Although the bonds are secured by the state's entire taxing power, the intention and practice has been to pay debt service from the Highway Trust Fund.

Effective in 2006 DOT may issue so-called GARVEE bonds, which are debt instruments issued in anticipation of the receipt of federal-aid highway funds, and which are payable solely from those funds when received. The proceeds must be used for federal-aided projects. This authorization could currently permit DOT to borrow about \$950 million.

Toll Roads

In 2002 the General Assembly created the N.C. Turnpike Authority and authorized it to study and eventually operate up to nine toll projects, both highways and bridges. The Authority is currently in the study stage.

II. Water and Sewer Infrastructure¹

Public Water and Sewer Systems

North Carolina has 535 public water systems and 409 public sewer systems statewide. Public water systems provide water to approximately 67 percent of the state's population and dispense more than 244.5 billion gallons of water a year. Public sewer systems serve roughly 51% of the population and treat more than 255 billion gallons of wastewater each year. Although there has been some movement towards regionalization, small water and sewer systems continue to dominate. For example, about half of North Carolina's water systems serve fewer than 2,500 people and 70 percent service fewer than 5,000 people. Small systems comprise 54 percent of sewer systems.

Local governments have a variety of alternatives for structuring public water and sewer systems.² Municipalities own and operate the vast majority of both water and sewer systems as public enterprises (G.S. 160A, Art. 16)—71 percent of the state's public water systems and 86 percent of the public sewer systems. Counties also are authorized to own and operate water and sewer systems as public enterprises (G.S. 153A, Art. 15).

A handful of other organizational structures have been created over the years because of local needs that could not be met by cities and counties acting alone. Counties can establish water and sewer districts when services are needed in a portion of the counties only (G.S. 162A, Art. 6). Any two or more political subdivisions (such as municipalities, sanitary, water and sewer districts or other special purpose districts) in a county or a political subdivision and any unincorporated areas, can petition the board of commissioners to create metropolitan water or sewer districts (G.S. 162A, Arts 4 & 5).

¹ Most of the information on state and federal capital funding sources and levels of funding was obtained from The N.C. Rural Economic Development Center (The Rural Center). Based on research conducted through its Water2030 Initiative, the Rural Center published three reports on its findings—*Impact of the 1998 Clean Water Bonds, Trends in Water and Sewer Financing*, and *Water, Sewer and Stormwater Capital Needs*. The reports are available at <http://www.ncruralcenter.org/water2030/index.html>. Additional sources include The North Carolina State Water Infrastructure Commission, *Report and Recommendation to Governor Michael F. Easley and Members of the General Assembly of North Carolina* (November 1, 2006), The Drinking Water State Revolving Fund (DWSRF) Annual Report, Capitalization Grants For Period Ending June 30, 2006 (Sept. 30, 2006), available at <http://www.deh.enr.state.nc.us/pws/srf/pdf/2006AnnualReport.pdf>, The North Carolina Clean Water Management Trust Fund Annual Report 2005, available at <http://www.cwmtf.net/ar2005.pdf>, and the staff of the Environmental Finance Center, UNC School of Government.

² In addition to publicly owned and operated utilities, municipalities can grant franchises to privately owned public utility corporations to provide water and sewer services (N.C. Gen. Stat. § 160A-319 (2005) [hereinafter G.S.]). Public utility corporations also can petition the Public Utilities Commission to provide services in a designated area (G.S. 62, Art. 6).

The Commission for Health Services can create sanitary districts, after a petition process that starts with petitions from a majority of owners of real property in a proposed district, to operate water and sewer systems for the purpose of preserving and promoting public health and welfare (G.S. 130A, Art. 2, Pt. 2). A county, or two or more political subdivisions (such as municipalities or sanitary districts) can organize a water and sewer authority to provide water and sewer services (G.S. 162A, Art.1). Finally, municipalities and counties can define special service districts within their borders and levy additional taxes in those areas to provide sewer services and facilities that are not offered throughout the unit or that are offered at a lower level in the rest of the unit (G.S. 160A, Art. 23; G.S. 153A, Art. 16). Counties also can establish the districts for water services.

Together the county public enterprise systems and various districts comprise approximately 20 percent of the water systems and 13 percent of the sewer systems. Authorities account for only 1 percent of both public water and sewer systems.

Current Capital Financing Options for Water and Sewer Infrastructure

Federal and State Revenue Sources

Several federal agencies and commissions, including the U.S. Environmental Protection Agency (EPA), the U.S. Department of Agriculture (USDA), the U.S. Department of Housing and Urban Development (HUD), the U.S. Department of Commerce and the Appalachian Regional Commission, distribute funds directly to local communities for water and sewer capital projects. Other federal funds are funneled through various state agencies and often require the state to provide a certain percentage of matching funds.

The state also provides funding through appropriations to various state agencies and local communities. The most significant source of state funding over the past several years, however, was \$800 million generated by the 1998 Clean Water Bonds. In anticipation of severe shortfalls in funds to pay for required water and sewer infrastructure projects, the General Assembly passed the Clean Water and Natural Gas Critical Needs Bond Act of 1998. North Carolina voters subsequently approved issuance of the Clean Water Bonds. They were designed to address the most urgent needs of the state's water and sewer systems by serving utilities unable to obtain other financing. The bond proceeds were distributed to three agencies and supported 1,103 projects in 97 counties. Rural, economically distressed areas benefited from three-quarters of the projects. They accounted for 30 percent of all water and sewer investments in North Carolina by state and federal sources from 1995-2005. With the exception of moneys earmarked for a few delayed construction projects, the proceeds of the Clean Water Bonds were depleted in fiscal year 2005-2006.

Local Revenue Sources

Loans from banks and other private lending institutions to local communities (debt financing) actually provide the largest source of funding for water and sewer capital

projects. These loans take several forms, including general obligation bonds, revenue bonds, special obligation bonds, tax increment bonds and installment, or lease-purchase, debt. Approximately 60 percent of North Carolina local governments cannot qualify for most private loan programs (bond market) because they are not considered credit-worthy, however. For these communities, state and federal contributions provide the main source of funding. In addition to debt financing, local governments and other public entities responsible for providing water and sewer services are authorized to raise funds through a variety of mechanisms, including property taxes and other unearmarked general fund revenue, impact fees, connection fees and special assessments.

The combined investments of federal and state funding and local borrowing provided an average of \$789.5 million per year to local communities from 1995-2005. The following chart details the total amounts (in millions) awarded to North Carolina communities by each of the major funding sources from 1995-2005.³ (It does not include amounts raised locally through property taxes or utility fees.)

Source	FY95	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Totals
Federal Direct Funds	\$76.4	\$47.1	\$56.5	\$90.6	\$75.0	\$75.9	\$85.9	\$75.9	\$70.6	\$102.8	\$58.8	\$815.7
Clean Water Bonds	\$30.8	\$41.7	\$3.1	\$2.7	\$111.2	\$160.5	\$146.9	\$129.4	\$76.1	\$70.3	\$36.1	\$808.9
Federal Funds Administered by the State	\$57.7	\$50.5	\$36.7	\$46.5	\$113.6	\$127.3	\$40.0	\$49.8	\$112.3	\$70.5	\$131.4	\$836.4
All Other State Funds	\$14.8	\$6.0	\$16.3	\$28.9	\$50.8	\$23.6	\$17.8	\$16.9	\$15.1	\$14.4	\$28.8	\$233.3
Local/Public/Private Market Loans	\$175.3	\$468.6	\$234.6	\$406.7	\$744.1	\$358.9	\$733.5	\$507.1	\$837.2	\$704.2	\$816.4	\$5,986.6
Totals	\$355.0	\$613.8	\$347.2	\$575.3	\$1,094.7	\$746.3	\$1,024.2	\$779.1	\$1,111.4	\$962.2	\$1,071.6	\$8,681.0

Complete figures for local funding sources, other than debt financing, for the period 1995-2005 are not readily available. As a rough estimate, according to the North Carolina Local Government Commission's Annual Financial Information Reports municipalities and counties spent roughly \$9.6 billion on water and sewer construction, land acquisition, equipment, repairs to existing structures and the principal and interest payments for debt service on water and sewer bonds during the eleven-year period. Based on the figures for federal, state funding and local debt, North Carolina cities and counties received roughly \$930 million from other sources, including local revenue-raising mechanisms.

³ The figures were obtained from The Rural Center's Water 2030 Report 1, *Impact of 1998 Clean Water Bonds*, available at <http://www.ncruralcenter.org/pubs/impactofbonds.pdf>.

Future Water and Sewer Capital Financing Needs

According to the Rural Center, water use from public water systems will increase at a rate of 2.7 percent annually; sewer system use will increase at a rate of 2.9 percent annually. At this rate, the state's water and sewer systems will serve more than 9.8 million people by 2030—70 percent more than today. Based on these projections, North Carolina's public water, sewer (and stormwater) utilities will require investments totaling \$16.63 billion to keep pace with necessary improvements and population growth over the next twenty-five years. The utilities will require \$6.85 billion (an average of \$1.37 billion per year) within the next five years to fund critical infrastructure needs.

The following chart details the capital needs projections for water, sewer and stormwater infrastructure through 2030.⁴

	2005-2010 (in billions)	2011-2030 (in billions)	Total (in billions)
Water	\$ 2.84	\$ 4.80	\$ 7.64
Sewer	\$ 3.44	\$ 4.08	\$ 7.52
Stormwater	\$ 0.57	\$ 0.90	\$ 1.47
Total	\$ 6.85	\$ 9.78	\$ 16.63

III. Local Government Borrowing Authority

There are five possible kinds of security that a local government may offer its lenders, and the differences in security affect the structure of the transaction, whether voter-approval is required, whether state approval will be needed, whether a bond attorney will be needed, and how the debt instruments will be sold.

General obligation borrowing

1. G.O. bonds are secured by the government's taxing power.
2. The government's taxing power is the strongest security, and therefore the G.O. borrowing rate will normally be the lowest rate available to the government.
3. G.O. borrowing almost always requires voter approval. The principle exceptions are for refunding bonds and for bonds within the two-thirds limitation.
4. G.O. borrowing must always be approved by the Local Government Commission.
5. A bond attorney is required for G.O. borrowing, and the bonds are always sold competitively through a public sale.

⁴ The figures were obtained from The Rural Center's Water 2030 Report 3, *Water, Sewer & Stormwater Capital Needs*, available at <http://www.ncruralcenter.org/pubs/capitalneeds.pdf>.

6. G.O. borrowing is available for any capital purpose.

Installment financings

1. Installment financings are secured by the project financed with borrowed funds.
2. These financings are often referred to as “leases,” “lease-purchases,” “capital leases,” or “160A-20s”.
3. This form of financing is legally available for any capital purpose, but the more “essential” the project, the easier it is to find lenders for this form of security.
4. Voter approval is never required for installment financings.
5. The Local Government Commission must approve many but not all installment financings.
6. A bond attorney is frequently not necessary, if the financing is “bank-eligible”. If it is bank-eligible, the financing will be placed with a bank. If the financing is publicly sold, it is done so through the issuance of certificates of participation, or COPs.

Revenue bond borrowing

1. Revenue bonds are secured by the revenues generated by the bond-financed project or by the system of which it is a part.
2. As a practical matter debt service coverage must be at least 150% in order to have a marketable deal. Therefore, the main purposes for which this form of financing is used are utilities, hospitals, and occasionally airports or parking structures.
3. Voter approval is never required for revenue bonds.
4. Revenue bonds must always be approved by the Local Government Commission.
5. A bond attorney is required for revenue bond financing. The bonds are sold through a negotiated sale, and they are sometimes placed with one or more banks.

Special obligation borrowing

1. S.O. bonds are secured by any revenue that is not produced by the government’s taxing power.

2. S.O. bonds may only be issued to fund solid waste projects, water projects, sewer projects, and projects within municipal service districts.
3. Voter approval is never needed for S.O. bonds.
4. S.O. borrowing must always be approved by the Local Government Commission.
5. A bond attorney is required for S.O. borrowing. The bonds are sold through a negotiated sale, and they are frequently placed with one or more banks.

Project development (Tax increment) borrowing

1. Project development debt instruments are secured by taxes on new development generated after and because of the debt-financed project. They might also be secured by valuation agreements with landowners and by special obligation revenues.
2. Voter approval is never needed for project development debt.
3. Project development borrowing must always be approved by the Local Government Commission.
4. A bond attorney is required for project development financing. The debt instruments are sold through a negotiated sale, and they may often be placed with one or more banks or, if large, one or more mutual funds.